



Steve Grelle

PE, SE

Senior Project Manager

Department

Engineering Services

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Locations

Dallas, TX

Biography

Stephen Grelle is a licensed engineer with over a decade of engineering and construction experience in various structural and building envelope repair, rehabilitation, and forensic projects. His investigative work has included structural damage and collapse assessments, condition assessments, and construction and material defect investigations. He has also observed and tested structures during original construction and repair work. While Stephen's work has included many modern and historical structural systems, many of his projects have included investigation, analysis, and repair of concrete structures. His background also includes research and testing of concrete structures, including testing of fiber-reinforced polymer (FRP) concrete repairs at Missouri S&T. Additionally, Stephen has worked extensively on parking garage waterproofing and structural systems. He has provided litigation support for construction defect claims on behalf of building owners, contractors, and engineers.

Credentials

- PE | Professional Engineer
- SE | Structural Engineer
- ICRI Certified Concrete Surface Repair Technician

Representative Consulting Assignments

- Joule Hotel Expansion | Dallas, TX | Investigation and rehabilitation of corrosion-induced deterioration of structural concrete; structural load testing
- Bishop Dunne Catholic School | Dallas, TX | Investigation and rehabilitation of corrosion-induced deterioration of concrete pan joist structure
- UT Southwestern Medical Center Parking Garages | Dallas, TX | Investigation, rehabilitation design, and construction observations for structural and waterproofing systems on over fifteen campus parking garages
- Argyle High School Training Facility | Argyle, TX | Investigation of collapse of steel building during erection
- Exall Dam Pedestrian Bridge Rehabilitation | Highland Park, TX | Investigation, rehabilitation design, and construction observations for repairs to a 1940s-era steel truss pedestrian bridge
- Remington Tower | Tulsa, OK | Investigation of structure and cladding of tornado-damaged high-rise office tower
- AMLI Addison | Addison, TX | Design of shoring and modifications to increase the clear height of loading dock doors
- JP Morgan Chase Parking Garage | Plano, TX | Load test of repaired precast concrete double-tee beam
- Skyline Drive Warehouse | Irving, TX | Investigation of distress to building structure and slab-on-ground following large water release after Winter Storm Uri
- Office Building Parking Garages (Multiple Sites) | Dallas, TX | Investigation of collapses during erection of a precast double-tee parking garage

- Warehouses and Distribution Centers (Multiple Sites) | Texas and Oklahoma | Investigation of steel joist roof collapses following Spring 2024 storm outbreaks
- Multiple Sites | Northwest Arkansas | Investigation of reported damage to over fifteen commercial and municipal buildings following May 2024 tornados

Professional Experience

- 2023 - Current | Senior Project Manager | YA Engineering Services
- 2011 - 2023 | Associate / Senior Associate | Wiss, Janney, Elstner Associates Inc. (WJE)

Area of Practice

- Condition Assessment
- Construction Administration
- Damage Assessment
- Failure Analysis
- Litigation Support
- Repair and Rehabilitation Design
- Structural Analysis
- Building Envelope
- Roofing

Publications and Presentations

- Grelle S and Sneed L., 01/01/2013, International Journal of Concrete Structures and Materials, Review of Anchorage Systems for Externally Bonded FRP Laminates, 1, 17-33
- He R, Grelle S, Sneed LH, Belarbi A., 07/01/2013, Composite Structures, Rapid repair of a severely damaged RC column having fractured bars using externally bonded CFRP, 101, 225-242
- Grelle S and Sneed L., January 1, 2013, International Journal of Concrete Structures and Materials, Review of Anchorage Systems for Externally Bonded FRP Laminates, 1, 17-33
- He R, Grelle S, Sneed LH, Belarbi A., July 1, 2013, Composite Structures, Rapid repair of a severely damaged RC column having fractured bars using externally bonded CFRP, 101, 225-242
- "Concrete Deterioration: Causes, Implications, and Repairs." April 13, 2016. Joint meeting between University of Texas at Arlington student chapter of American Society of Civil Engineers and North Texas Chapter of International Concrete Repair Institute. Arlington, Texas.
- "Concrete Repair Basics and Case Studies" April 4, 2018. Joint meeting between University of Texas at Arlington student chapter of American Society of Civil Engineers and North Texas Chapter of International Concrete Repair Institute. Arlington, Texas.
- "Inspection and Maintenance Requirements for Facade Access Equipment." June 7, 2019. High Rise Managers Forum hosted by Dallas/Ft. Worth Chapter Community Associations Institute. Dallas, Texas.
- "Assessment of Concrete Structures." July 11, 2019. Society of American Military Engineers, Wichita Mountains Post Meeting. Lawton, Oklahoma.
- "Evaluation, Repair, and Strengthening of Prestressed Concrete Structures." Joint meeting between student chapters of American Society of Civil Engineers and Architectural Engineering Institute. October 20, 2022. Missouri S&T, Rolla, Missouri.

- “Reinforced Concrete, Deterioration of Concrete, Quality Requirements, and Surface Preparation.” December 13, 2023. International Concrete Repair Institute Applicator Training. Carrollton, Texas.
- “Code Implications for Repairs in Existing Buildings.” February 8, 2024. National Association of Independent Insurance Adjusters Southwest Regional Seminar. Fort Worth, Texas.
- Reinforced Concrete, Deterioration of Concrete, Quality Requirements, and Surface Preparation.” February 29, 2024. International Concrete Repair Institute Applicator Training. Raleigh, North Carolina.

Education

- Missouri S&T - Bachelor of Science - Architectural Engineering - Rolla - Missouri
- Missouri S&T - Bachelor of Science - Civil Engineering - Rolla - Missouri
- Missouri S&T - Master of Science - Civil Engineering - Rolla - Missouri

Affiliations

- American Concrete Institute (ACI)
- International Concrete Repair Institute (ICRI)
- Structural Engineers Association of Texas (SEAoT)

Licenses

- 21811 - Arkansas - Professional Engineer
 - 96492 - Florida - Professional Engineer
 - PE053064 - Georgia - Professional Engineer
 - PE-20768-0 - Hawaii - Structural Engineer
 - 44976 - Louisiana - Professional Engineer
 - 2023012615 - Missouri - Professional Engineer
 - 29383 - New Mexico - Professional Engineer
 - 059290 - North Carolina - Professional Engineer
 - 30156 - Oklahoma - Professional Engineer, Structural Engineer
 - 43353 - South Carolina - Professional Engineer
 - 122385 - Texas - Professional Engineer
 - SE001855 - Georgia - Structural Engineer
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